

wherein the top surface of the first two-dimensional grating is amine activated, aldehyde activated, or nickel activated; wherein when the biosensor is illuminated two resonant grating effects are produced on the reflected radiation spectrum; and wherein the depth and period of both of the two-dimensional gratings are less than the wavelength of the resonant grating effects.

**IN THE SPECIFICATION:**

Please replace the second full paragraph at page 83 with the following paragraph:

Prepare 2.5% glutaraldehyde solution in 0.1 M sodium phosphate, 0.05% sodium azide, 0.1% sodium cyanoborohydride, pH 7.0. Add 2 ml of the glutaraldehyde solution to each amine-coated biosensor and incubate at room temperature for 30 min. Wash the biosensor three times with PBS (pH 7.0). The glutaraldehyde linker has a molecular weight of 100.11. The resulting biosensors can be used for binding proteins and other amine-containing molecules. The reaction proceeds through the formation of Schiff bases, and subsequent reductive amination yields stable secondary amine linkages. In one experiment, where a coated aldehyde slide made by the inventors was compared to a commercially available aldehyde slide (Cel-Associate), ten times higher binding of streptavidin and anti-rabbit IgG on the slide made by the inventors was observed.

**Remarks**

Five new claims are added by this preliminary amendment. The claims find support in the originally filed application at, *inter alia*, original claims 1, 85, 88, 91, and 96, at specification page 47, lines 15-23, example 8, and Figure 6. Applicants